

Customer No.: 31561  
Docket No.: 11843-US-PA  
Application No.: 10/707,687

AMENDMENT

Please amend the application as indicated hereafter.

In The Claims:

**Claim 1. (currently amended) A chip package structure, comprising:**

a carrier;

a chip, having an active surface with a plurality of bumps thereon, wherein the chip is flipped over and bonded to the carrier in a flip-chip bonding process so that the chip and the carrier are electrically connected;

a heat sink, set over the chip, wherein the heat sink has a surface area greater than the chip; and

an encapsulating material layer, filling a bonding gap between the chip and the carrier and covering the carrier, wherein the encapsulating material layer is formed in a simultaneous molding process and part of the surface of the heat sink away from the chip is exposed, and the encapsulating material layer between the chip and the carrier has a thickness such that maximum diameter of particles constituting the encapsulating material is less than 0.5 times the said thickness.

**Claim 2. (cancelled)**

**Claim 3. (original) The chip package structure of claim 1, wherein the package further comprises a thermal conductive adhesive layer set between the chip and the heat sink.**

Customer No.: 31561  
Docket No.: 11843-US-PA  
Application No.: 10/707,687

**Claim 4. (original)** The chip package structure of claim 1, wherein material constituting the encapsulating material layer comprises a resin.

**Claim 5. (original)** The chip package structure of claim 1, wherein material constituting the heat sink comprises a metal.

**Claim 6. (original)** The chip package structure of claim 1, wherein the package further comprises an array of solder balls attached to a surface of the carrier away from the chip.

**Claim 7. (original)** The chip package structure of claim 1, wherein the package further comprises at least a passive component set on and electrically connected with the carrier.

**Claim 8. (original)** The chip package structure of claim 1, wherein the carrier is selected from a group consisting of a packaging substrate or a lead frame.

**Claims 9-26 (cancelled)**